MMOSAIC™ 64K SELECT NEWSLETTER

Late Breaking News

Memory For 600XL

Mosaic now has three products on the market for the 600XL. The first is a 48K Expander which brings the computer's total memory to 48K. This is enough memory to run nearly every software package available. This board can be upgraded to 64K at any time by adding the Expander Package, which is easy to install due to the sockets on the 48K board.

For those who would like an immediate 64K system, we offer a complete board that will provide all the power of the 800XL. With 64K, there isn't a single program written that the 600XL can't run.

These are boards that offer internal expansion and will maintain the expansion port for future peripherals. And in the MOSAIC tradition, the boards are fully tested, have a one-year guarantee, and include our famous easy-to-follow illustrated manuals. Both the 48K and 64K Expanders require soldering at 3 points.

Oops!

Remember last month when we printed that great article "ValForth Disk Emulator" by Les Grundman? Do you also remember the article referring to "the accompanying code which tricks ValForth into using the Mosaic card as a drive."? And remember looking for "the accompanying code"? You didn't find it. We're very sorry. The ValForth Disk Emulator code is on the following page. Please forgive us and the inconvenience caused.

```
( load only words DRIVE# thru RAMDISK
     for use with screen editor  )



      2 CONSTANT DRIVE#
      4 CONSTANT #BANKS
    360 CONSTANT FIRSTSEC

    #BANKS 32 * FIRSTSEC +
          CONSTANT LASTSEC


  : 48K     192 106 C!   0 6R. ;
  : BANK    65472 +   0 SWAP C! ;

  : RANGE?
      3 PICK DUP  FIRSTSEC >= SWAP
      LASTSEC  <=   AND ;


  : RAMDISK   OVER DRIVE# =
   IF  RANGE?
    IF
      SWAP DROP ROT ROT FIRSTSEC - 32
      /MOD  BANK  128 * 49152 + ROT
      IF SWAP THEN 128 CMOVE  0
     ELSE 2DROP 2DROP 144
     THEN
    ELSE
     -DISK
    THEN   49 BANK ;


  ( load the following code for use
       with ValDos                  )


    QUAN DSKSTART    360 TO DSKSTART
    QUAN IN/OUT
    QUAN VTOC
    QUAN BSTART


  : BIT?  1 OVER 1+  0
      DO 2 * LOOP 2 / AND 0 # ;

  : VTOCMOVE   0 BANK  49152 PAD
      DUP 55 + TO VTOC 128 CMOVE ;

  : VTOCIN   0 BANK
      49152
      DSKSTART
      1
      1   -DISK  DROP VTOCMOVE ;
```

```
  : GETBIT   BSTART  -1 AT BSTART +!
      8 MOD ;



  : DSK  #BANKS 32 * 0   519 TO BSTART
     DO
       I 32 / BANK
       I 8 / VTOC + C@
       GETBIT ?BIT
        NOT
        IF
         I 32 MOD 128 * 49152 +
         I DSKSTART +
         1
         IN/OUT
         -DISK   IF LEAVE THEN
        THEN
     LOOP ;


  : INDSK  49 BANK  0 6R.
     VTOCIN   1 TO IN/OUT  DSK ;

  : OUTDSK  VTOCMOVE
              0 TO IN/OUT  DSK ;

  : DSKFOR   0 BANK
     49152 1152 ERASE
     127 49208  C!
     49209 #BANKS 4 *  2DUP
     2 -  255 FILL
     + 1-   254 SWAP C!
     #BANKS 32 * 360 MIN 9 - 49155 !
     CR ." diskname: "
     49152 104 +  7 EXPECT
          49 BANK ;


  ( once the code has been loaded type
     ' RAMDISK CFA 7982 !
     to reconfigure the word R/W      )
```

EXPANDED RAM APPLICATIONS

Upon learning that I have 128K of Mosaic RAM, many people ask me - what do I do with it - or why do I need it? Well, the fact of the matter is that since I installed my expanded RAM, I have found so many uses for it that I doubt that I could get along without it. I'd like to share some of the uses with the Newsletter readers.

In a previous issue, I discussed my use of the expanded RAM with the Mosaic SUPERDRIVE program to act as a Ram Disk - for very fast uploading and downloading of programs and information off of BBS's and information services like CompuServe - so I will only mention the application and not discuss it in detail.

Another application that I will mention only, is the obvious use in programming for animation and as a safe location for Machine Language subroutines in BASIC. These applications alone make the 64K Select RAM well worth the price.

One of my prime uses for the memory is for multi function processing. I have written several specialized business graphics programs for my personal use in my Aerospace Engineering job. I have also written several financial data plotting and analysis programs to track and project my financial situation. These programs need periodic updating and are sometimes used for analysis or review of project schedules. Also, I occasionaly need to interact data between programs.

When I start my update or analysis, I boot up with the Mosaic SUPERDRIVE program which configures my system into a two disk system. My actual disk drive (D1:) and a Virtual disk drive or RAM Disk (D2:). I then copy my disk containing the programs and data files into (D2:) (the Ram Disk) using the copy function of DOS as follows: (D1:*.*,D2:*.*). By loading them into (D2:) I have instantaneous access to any of the programs or data files since loads or saves to or from the RAM Disk or to or from the computer RAM is virtually instantaneous.

For financial analysis, I load in my data files, update them, save or list them to (D2:), call up my plotting program, recall or merge the data file, and finally, call up my screen dump program to print out a copy of the plot(s). Again, when using this technique, the load and save is instantaneous. There is no need to spend time waiting for files to load or save. If I need to run an analysis with one of the other programs, I simply save the file I'm using to (D2:) and call up my analysis program. When I'm done I call back the plotting program--all instantly. It's a lot like using a "mini" multi function plan type program like those used with the more expensive, larger memory personal computers. Give any of you programming geniuses out there some ideas???

I do likewise with my charting and scheduling programs. Copy to (D2:), update, load in the charting program, etc. When I'm done, I reverse save from (D2:) to (D1:) using the DOS copy function: (D2:*.*,D1*.*). This technique enables you to write a number of small programs or routines that do not require a lot of memory and to instantly call up the program, subroutine or data as required. You can even use the same data for several programs or routines.

Some other applications that may be of interest to some of your readers are:

*INHOME'S B-GRAPH (A professional graphing program) - SUPERDRIVE is compatable with certain parts of B-GRAPH. Boot up with SUPERDRIVE then type in RUN "D:START" and B-GRAPH will load in. You can then use some of the plotting modules like PIE charting and save the data or images to (D2:) for later file manipulation, custom lettering, or comparison. It is really quite spectacular to watch the instantaneous save and load of a B-GRAPH image. PIE charting seems to work well; however, the other charting modules are sometimes erratic. Perhaps a reader with more programming experience than I could check out why and report back to us.

*VISICORP'S VISICALC - Just by installing one 64K RAM and without any special programming, one can pick up an extra 4K when using VISICALC. This may be just enough, as in one of my applications, to expand your spread sheet out an extra six months.

*LJK'S LETTERPERFECT - You pick up an extra 4K for those long reports that eat up memory.

*ATARIWRITER - If you Boot up with SUPERDRIVE, you can use (D2:) as a temporary storage for files or information that you may be editing or comparing.

CONTINENTAL'S HOME ACCOUNTING - As I was closing this article, I thought that I might try out the HOME ACCOUNTANT program. I can report that it seems to load in OK with SUPERDRIVE by typing RUN"D:HELLO.*". I was then able to transfer data acceptably - but I did not reconfigure the HOME ACCOUNTANT into a two disk system, since I did not have a requirement to do so. I did not thoroughly check it out, so if you try it, do so at your own risk.

   I hope that my ideas in this article will be of help to you or possibly stimulate some ideas for other uses--maybe a general purpose Multi Function program.

emJAYel

   NOTE: SUPERDRIVE allows you to configure your bank select memory as a second, third, or fourth disk drive. It works with all allowable memory configurations to give you up to 720 sectors of high speed file storage. All standard DOS commands are supported including mem save files.

   SUPERDRIVE is most ideal for storage of data that normally requires frequent editing or access. Saves and loads are preformed 20 to 30 times faster than with a standard disk drive. Suggested retail is $29.95 plus $3.00 for shipping. Visa or Mastercard, call 1-800-223-3726. Check or money order, Mosaic Elect. P. O. Box 708, Oregon City, OR 97045.